

Appendix D

Supporting Data

2009 SBOO Stations

Macrobenthic Communities

Appendix D.1

All taxa composing cluster groups A–G from the 2009 surveys of SBOO benthic stations. Data are expressed as mean abundance per sample (no./0.1 m²) for each group. Number of station/survey entities per cluster group shown in parentheses.

Species/Taxa	Phyla	Cluster Group					
		A (1)	B (2)	C (12)	D (8)	E (4)	F (7)
<i>Acanthoptilum</i> sp	Cnidaria				0.1		
<i>Acidostoma hancocki</i>	Arthropoda		0.1	0.1			0.1
<i>Acteocina cerealis</i>	Mollusca			0.1	0.4		0.1
<i>Acteocina culcitella</i>	Mollusca		0.2			2.0	0.5
<i>Acteocina harpa</i>	Mollusca			0.1			0.1
<i>Acteocina</i> sp	Mollusca					0.1	<0.1
Actiniaria	Cnidaria	0.3	0.1	0.3	0.1	0.2	0.1
<i>Adontorhina cyclia</i>	Mollusca				0.1		
<i>Aegires albopunctatus</i>	Mollusca						<0.1
<i>Aglaja ocelligera</i>	Mollusca						0.1
<i>Aglaophamus verrilli</i>	Annelida				0.1		
<i>Agnezia septentrionalis</i>	Chordata		0.3	0.7	0.1		0.2
<i>Alienacanthomysis macropsis</i>	Arthropoda					0.1	
<i>Alvania compacta</i>	Mollusca		<0.1		0.1	0.4	
<i>Alvania rosana</i>	Mollusca						<0.1
<i>Amaeana occidentalis</i>	Annelida				0.5	0.1	0.2
<i>Americhelidium shoemakeri</i>	Arthropoda		0.8	0.1		0.1	0.1
<i>Americhelidium</i> sp	Arthropoda		<0.1				
<i>Americhelidium</i> sp SD1	Arthropoda		0.5	0.3		0.1	<0.1
<i>Americhelidium</i> sp SD4	Arthropoda					0.1	<0.1
<i>Ampelisca agassizi</i>	Arthropoda	1.0	0.1		1.5		3.0
<i>Ampelisca brachycladus</i>	Arthropoda	0.3	0.2			2.4	0.2
<i>Ampelisca brevisimulata</i>	Arthropoda		0.2		1.0	0.8	8.2
<i>Ampelisca careyi</i>	Arthropoda		<0.1		2.4		1.8
<i>Ampelisca cf brevisimulata</i>	Arthropoda				0.1		
<i>Ampelisca cristata cristata</i>	Arthropoda	0.3	4.8	6.9	0.4	8.7	1.6
<i>Ampelisca cristata microdentata</i>	Arthropoda			0.1		0.1	5.5
<i>Ampelisca hancocki</i>	Arthropoda					0.1	
<i>Ampelisca indentata</i>	Arthropoda					3.1	
<i>Ampelisca lobata</i>	Arthropoda						0.1
<i>Ampelisca milleri</i>	Arthropoda						0.1
<i>Ampelisca pacifica</i>	Arthropoda				0.4		
<i>Ampelisca pugetica</i>	Arthropoda		0.1		0.4		4.6
<i>Ampelisca</i> sp	Arthropoda		0.1	0.1	0.1	0.1	0.4
<i>Ampeliscphotis podophthalma</i>	Arthropoda		0.2				0.9
<i>Ampharete acutifrons</i>	Annelida			0.1	0.1		
<i>Ampharete finmarchica</i>	Annelida						<0.1
<i>Ampharete labrops</i>	Annelida	0.5	0.8	0.1		4.2	2.0
<i>Ampharete</i> sp	Annelida			0.1	0.1	0.1	0.1
Ampharetidae	Annelida			0.1	0.6	0.1	0.1
Ampharetidae sp SD1	Annelida			0.1	0.4		
<i>Amphicteis scaphobranchiata</i>	Annelida		<0.1	0.1	0.5	0.3	0.7
<i>Amphideutopus oculatus</i>	Arthropoda		0.3		0.4		2.6
<i>Amphiodia digitata</i>	Echinodermata		0.1		1.9	1.6	0.9
<i>Amphiodia psara</i>	Echinodermata	0.5		0.1	0.3	0.1	

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Amphiodia</i> sp	Echinodermata	1.5	0.3	0.7	1.2	3.0	1.1
<i>Amphiodia urtica</i>	Echinodermata		0.3	1.6	0.1	5.0	0.3
<i>Amphioplus</i> sp	Echinodermata			0.1		0.6	1.0
<i>Amphioplus</i> sp A	Echinodermata			<0.1		1.1	1.5
<i>Amphipholis squamata</i>	Echinodermata			0.1	0.2	0.3	0.1
<i>Amphiporidae</i>	Nemertea			0.2		0.2	0.3
<i>Amphissa undata</i>	Mollusca					1.0	0.1
<i>Amphiura arcystata</i>	Echinodermata					0.3	<0.1
<i>Amphiuridae</i>	Echinodermata			4.0	0.7	1.3	1.4
<i>Anchicolurus occidentalis</i>	Arthropoda	0.3		0.5			0.2
<i>Ancistrosyllis groenlandica</i>	Annelida					0.1	0.1
<i>Ancistrosyllis hamata</i>	Annelida			<0.1			<0.1
<i>Ancistrosyllis</i> sp	Annelida						<0.1
<i>Anemonactis</i> sp	Cnidaria			<0.1	0.1		<0.1
<i>Anobothrus gracilis</i>	Annelida					1.9	0.1
<i>Anoplodactylus erectus</i>	Arthropoda			0.3	0.2	0.9	0.1
<i>Anotomastus gordioides</i>	Annelida						0.3
<i>Aonides</i> sp SD1	Annelida	0.8		0.1			
<i>Aoroides exilis</i>	Arthropoda			<0.1			
<i>Aoroides inermis</i>	Arthropoda			0.1			
<i>Aoroides</i> sp	Arthropoda					0.1	0.1
<i>Aoroides</i> sp A	Arthropoda						<0.1
<i>Aoroides spinosa</i>	Arthropoda						<0.1
<i>Aphelochaeta glandaria</i> complex	Annelida			1.0	0.1	0.6	0.2
<i>Aphelochaeta monilaris</i>	Annelida					3.5	0.1
<i>Aphelochaeta petersenae</i>	Annelida					0.1	0.1
<i>Aphelochaeta phillipsi</i>	Annelida					0.2	
<i>Aphelochaeta</i> sp	Annelida	0.3		0.2		0.5	0.1
<i>Aphelochaeta</i> sp LA1	Annelida			<0.1		1.3	<0.1
<i>Aphelochaeta</i> sp SD5	Annelida			1.4	0.8		0.1
<i>Aphelochaeta tigrina</i>	Annelida					0.4	
<i>Aphelochaeta williamsae</i>	Annelida					0.5	
<i>Aphrodita</i> sp	Annelida			<0.1		0.3	0.1
<i>Apionsoma misakianum</i>	Sipuncula	1.0	<0.1		0.2	0.9	0.1
<i>Apistobranchus ornatus</i>	Annelida						0.2
<i>Apopriionospio pygmaea</i>	Annelida	1.5		2.4			5.5
<i>Arachnanthus</i> sp A	Cnidaria					0.1	1.4
<i>Araphura brevioria</i>	Arthropoda					0.4	
<i>Araphura</i> sp SD1	Arthropoda					0.8	
<i>Argissa hamatipes</i>	Arthropoda			0.1	0.2	0.1	0.2
<i>Aricidea (Acmira) catherinae</i>	Annelida			0.1	0.1	0.3	1.3
<i>Aricidea (Acmira) cerrutii</i>	Annelida	0.3		1.0	0.5		
<i>Aricidea (Acmira) horikoshii</i>	Annelida						0.1
<i>Aricidea (Acmira) lopezi</i>	Annelida					0.5	0.1
<i>Aricidea (Acmira) simplex</i>	Annelida			<0.1	0.3	4.9	0.2
<i>Aricidea (Acmira)</i> sp	Annelida			<0.1			
<i>Aricidea (Acmira)</i> sp SD1	Annelida			<0.1		0.1	
<i>Aricidea (Allia) antennata</i>	Annelida						<0.1
<i>Aricidea (Allia) hartleyi</i>	Annelida					0.1	<0.1

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Aricidea (Allia)</i> sp A	Annelida					0.3	
<i>Aricidea (Allia)</i> sp SD1	Annelida		0.2	0.1			
<i>Aricidea (Aricidea) pseudoarticulata</i>	Annelida				0.1		
<i>Aricidea (Aricidea) sp SD3</i>	Annelida		0.1		0.1		
<i>Aricidea (Aricidea) wassi</i>	Annelida		<0.1			0.1	0.5
<i>Armandia brevis</i>	Annelida		0.1			0.1	0.1
<i>Armina californica</i>	Mollusca		<0.1				<0.1
<i>Artacamella hancocki</i>	Annelida			0.2	1.0		0.1
<i>Aruga holmesi</i>	Arthropoda						<0.1
<i>Aruga oculata</i>	Arthropoda	0.3	0.3	0.1	0.8		0.7
<i>Asabellides lineata</i>	Annelida			0.1	0.9		<0.1
Asciidiacea	Chordata		0.2	0.2	0.1		0.1
Asteroidea	Echinodermata			0.4	0.4		
<i>Astropecten</i> sp	Echinodermata		<0.1	0.1			
<i>Astropecten verrilli</i>	Echinodermata		0.3	0.3	0.3		<0.1
<i>Astyris aurantiaca</i>	Mollusca		0.4			0.1	
<i>Autolytus</i> sp	Annelida				0.3		0.3
<i>Axinopsida serricata</i>	Mollusca				9.1		0.4
<i>Axiothella</i> sp	Annelida	0.3	6.7	1.2		1.7	2.0
<i>Balanoglossus</i> sp	Chordata		0.2				0.1
<i>Balcis micans</i>	Mollusca		0.1	0.1			0.1
<i>Balcis oldroydae</i>	Mollusca	0.5		0.2		0.1	0.1
<i>Bathyleberis cf garthi</i>	Arthropoda			<0.1			
<i>Bemlos audbetti</i>	Arthropoda						<0.1
<i>Bemlos concavus</i>	Arthropoda						0.1
<i>Bemlos</i> sp	Arthropoda					0.1	<0.1
<i>Bispira</i> sp	Annelida				0.1	0.4	
Bivalvia	Mollusca		<0.1	0.3	0.3	0.1	0.2
<i>Brada pluribranchiata</i>	Annelida						0.1
<i>Brada villosa</i>	Annelida						0.1
<i>Branchiostoma californiense</i>	Chordata	8.3	0.7	0.1			0.1
<i>Byblis millsi</i>	Arthropoda			1.2	1.8		0.2
<i>Caecognathia crenulatifrons</i>	Arthropoda		0.2		3.5	0.1	2.3
<i>Caesia perpinguis</i>	Mollusca	0.5		0.1	0.1	0.2	0.4
<i>Callianax baetica</i>	Mollusca	1.0	9.0	1.5	0.8	0.3	0.5
<i>Calliostoma tricolor</i>	Mollusca					0.1	
<i>Calypteraea fastigiata</i>	Mollusca		1.5			0.1	0.1
<i>Campylaspis biplicata</i>	Arthropoda				0.1		
<i>Campylaspis canaliculata</i>	Arthropoda				0.2	0.3	0.2
<i>Campylaspis hartae</i>	Arthropoda			0.1	0.1		0.1
<i>Campylaspis maculinodulosa</i>	Arthropoda						0.2
Cancridae	Arthropoda		<0.1				0.1
<i>Capitella teleta</i>	Annelida					0.5	0.1
<i>Caprella californica</i>	Arthropoda		0.3				
<i>Caprella mendax</i>	Arthropoda		0.1	0.9	1.1		0.3
<i>Caprella penantis</i>	Arthropoda		0.1				
<i>Caprella</i> sp	Arthropoda			0.9			<0.1
Caprellidae	Arthropoda				0.6		0.1
Caprellinae	Arthropoda					0.6	

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Carazziella</i> sp A	Annelida						<0.1
<i>Cardiomya pectinata</i>	Mollusca			0.1	1.3		
<i>Cardiomya planetica</i>	Mollusca			0.1			
Caridea	Arthropoda					0.1	
<i>Carinoma mutabilis</i>	Nemertea	10.0	2.3	0.3	0.1	1.1	0.6
<i>Carinomella lactea</i>	Nemertea						<0.1
<i>Caulieriella pacifica</i>	Annelida	1.8	0.3				
<i>Cerapus tubularis</i> complex	Arthropoda		0.2	0.1		0.6	0.6
<i>Cerebratulus californiensis</i>	Nemertea	0.3	<0.1	0.1			<0.1
Ceriantharia	Cnidaria	0.5	0.2	0.1	0.3		0.2
<i>Chaetoderma marinelli</i>	Mollusca				0.1		
Chaetopteridae	Annelida						0.1
<i>Chaetozone corona</i>	Annelida					0.2	4.1
<i>Chaetozone hartmanae</i>	Annelida				3.8		0.1
<i>Chaetozone</i> sp	Annelida	0.2	0.2	0.6	0.1	0.2	0.6
<i>Chaetozone</i> sp SD1	Annelida			0.1			
<i>Chaetozone</i> sp SD2	Annelida		3.0	0.8	4.4	0.1	0.1
<i>Chaetozone</i> sp SD5	Annelida	1.3	0.5	0.3	0.3	1.3	1.1
<i>Chauliopleona dentata</i>	Arthropoda				0.6		
<i>Chiridota</i> sp	Echinodermata				0.3		0.1
<i>Chloeia pinnata</i>	Annelida				0.3		
<i>Chone albocincta</i>	Annelida			0.1	0.4		0.2
<i>Chone bimaculata</i>	Annelida			0.2			
<i>Chone ecaudata</i>	Annelida	0.3	<0.1				0.1
<i>Chone paramollis</i>	Annelida	2.0	4.3	0.4	0.1	0.2	1.1
<i>Chone</i> sp	Annelida		0.1		0.4		
<i>Chone</i> sp B	Annelida	0.3		1.2	0.5		<0.1
<i>Chone trilineata</i>	Annelida	0.3			2.4		
<i>Chone veleronis</i>	Annelida	0.5		1.6	2.8	0.9	3.4
Cirratulidae	Annelida	0.3			0.1	0.1	0.1
<i>Cirriformia</i> sp	Annelida		0.1				
<i>Cirrophorus furcatus</i>	Annelida		0.2		0.3	0.1	0.2
<i>Clymenella complanata</i>	Annelida		0.3	0.5	0.1	0.1	
<i>Clymenella</i> sp	Annelida		0.6	0.6			
<i>Clymenella</i> sp A	Annelida		0.2	0.8			
<i>Clymenella</i> sp SD1	Annelida		<0.1			0.2	
<i>Clymenura gracilis</i>	Annelida		<0.1		4.9	0.1	<0.1
<i>Cnemidocarpa rhizopus</i>	Chordata	0.5	1.4	1.2	0.4	0.1	0.1
<i>Compsomyax subdiaphana</i>	Mollusca				0.3	0.3	0.5
<i>Cooperella subdiaphana</i>	Mollusca	0.3	0.4			1.9	1.4
Copepoda	Arthropoda					0.1	<0.1
Corophiida	Arthropoda				0.3		<0.1
<i>Corymorpha bigelowi</i>	Cnidaria				0.1		0.1
<i>Cossura candida</i>	Annelida						0.4
<i>Cossura</i> sp	Annelida						0.1
<i>Cossura</i> sp A	Annelida		<0.1				0.2
<i>Crangon alaskensis</i>	Arthropoda						<0.1
<i>Crangon alba</i>	Arthropoda		<0.1	0.1			
<i>Crangon</i> sp	Arthropoda		<0.1	0.1			0.1

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Crassispira semiinflata</i>	Mollusca						<0.1
<i>Crepidula</i> sp	Mollusca		<0.1			0.5	0.1
<i>Cryptonemertes actinophila</i>	Nemertea		0.1				<0.1
<i>Cumanotus fernaldi</i>	Mollusca				0.1		<0.1
<i>Cumella californica</i>	Arthropoda						<0.1
<i>Cumella</i> sp SD1	Arthropoda						0.1
<i>Cyathodonta pedroana</i>	Mollusca					0.1	0.2
<i>Cyclaspis nubila</i>	Arthropoda		<0.1	0.9			
<i>Cyclocardia</i> sp	Mollusca			0.1			
<i>Cyclocardia ventricosa</i>	Mollusca			0.8			
<i>Cylchna diegensis</i>	Mollusca		0.8	1.0	0.8	0.5	2.0
<i>Cylindroleberididae</i>	Arthropoda			0.3			<0.1
<i>Dactylopleustes</i> sp A	Arthropoda						<0.1
<i>Decamastus gracilis</i>	Annelida					0.5	0.3
<i>Deflexilodes norvegicus</i>	Arthropoda					0.1	
<i>Deilocerus planus</i>	Arthropoda	3.5	<0.1				
<i>Dendraster terminalis</i>	Echinodermata	2.3	4.2	0.1		0.1	<0.1
<i>Dendrochirotida</i>	Echinodermata						<0.1
<i>Dentalium neohexagonum</i>	Mollusca						<0.1
<i>Dentalium vallicolens</i>	Mollusca			0.3			
<i>Diastylis californica</i>	Arthropoda		<0.1		0.1		0.5
<i>Diastylis crenellata</i>	Arthropoda					0.1	0.1
<i>Diastylis santamariensis</i>	Arthropoda		0.3				<0.1
<i>Diastylopsis tenuis</i>	Arthropoda					0.2	
<i>Diopatra ornata</i>	Annelida					0.2	0.3
<i>Diopatra</i> sp	Annelida	0.5	0.6	0.6	0.1	0.5	2.6
<i>Diopatra splendidissima</i>	Annelida		<0.1			0.1	
<i>Diopatra tridentata</i>	Annelida		0.3	0.6		0.1	1.4
<i>Diplodonta sericata</i>	Mollusca			0.1			
<i>Dipolydora socialis</i>	Annelida	0.5	0.1	0.3	0.9	1.7	3.0
<i>Dipolydora</i> sp	Annelida				0.1	0.1	
<i>Dorvillea (Schistomeringsos)</i> sp	Annelida	0.5	<0.1				
<i>Dorvilleidae</i>	Annelida						<0.1
<i>Doto</i> sp	Mollusca						<0.1
<i>Dougaloplus</i> sp A	Echinodermata					0.4	
<i>Drilonereis falcata</i>	Annelida				0.1	0.1	0.1
<i>Drilonereis</i> sp	Annelida			0.1		0.1	0.3
<i>Echinoidea</i>	Echinodermata		<0.1	0.1			
<i>Eclysippe trilobata</i>	Annelida		<0.1			0.3	
<i>Edotia</i> sp B	Arthropoda			0.1			0.1
<i>Edotia sublittoralis</i>	Arthropoda	0.5	0.5	1.1		0.9	0.4
<i>Edwardsia</i> sp G	Cnidaria	0.5	<0.1			0.1	0.1
<i>Edwardsiidae</i>	Cnidaria	3.0	0.5			0.2	0.1
<i>Ennucula tenuis</i>	Mollusca				7.4		
<i>Enopla</i>	Nemertea	1.3	0.3	0.2		0.1	0.2
<i>Ensis myrae</i>	Mollusca					0.1	<0.1
<i>Enteropneusta</i>	Chordata	0.3	<0.1			0.1	0.2
<i>Epitoniiidae</i>	Mollusca						<0.1
<i>Epitonium bellastriatum</i>	Mollusca		<0.1		0.1		0.2

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Epitonium sawinae</i>	Mollusca			0.1	0.1		<0.1
<i>Eranno bicirrata</i>	Annelida						<0.1
<i>Eranno lagunae</i>	Annelida						<0.1
<i>Ericthonius brasiliensis</i>	Arthropoda		0.1				0.1
<i>Eteone brigitteae</i>	Annelida		<0.1				
<i>Eteone leptotes</i>	Annelida					0.1	
<i>Eteone pigmentata</i>	Annelida			0.1		0.1	0.1
<i>Euchone arenae</i>	Annelida	1.0	0.3	1.2	0.6	0.5	0.1
<i>Euchone hancocki</i>	Annelida		0.6				0.1
<i>Euchone incolor</i>	Annelida		0.2		1.0		0.1
<i>Euchone sp</i>	Annelida		0.2		0.1	0.1	
<i>Euclymeninae</i>	Annelida	3.8	0.7	1.8	1.4	2.4	1.6
<i>Euclymeninae sp A</i>	Annelida	1.5	0.3	1.0	1.4	7.6	6.4
<i>Eulalia californiensis</i>	Annelida		0.3			0.1	<0.1
<i>Eulima raymondi</i>	Mollusca						<0.1
<i>Eulimidae</i>	Mollusca					0.1	
<i>Eulithidium substriatum</i>	Mollusca	0.3				0.1	<0.1
<i>Eumida longicornuta</i>	Annelida		0.2			1.0	0.4
<i>Eunice americana</i>	Annelida			0.1	0.6		0.1
<i>Euphilomedes carcharodonta</i>	Arthropoda	1.5		1.7	0.2	3.8	2.4
<i>Euphilomedes producta</i>	Arthropoda					0.3	
<i>Euphysa sp A</i>	Cnidaria		<0.1	0.1	0.1	0.7	0.2
<i>Eupolyrnia heterobranchia</i>	Annelida		0.1		0.1		0.2
<i>Eurydice caudata</i>	Arthropoda		1.6	4.3	0.6		0.1
<i>Eusarsiella thominx</i>	Arthropoda						0.3
<i>Eusirus sp</i>	Arthropoda			0.1			
<i>Eusyllis blomstrandi</i>	Annelida			0.1			<0.1
<i>Eusyllis habei</i>	Annelida		0.1		0.3		
<i>Eusyllis sp SD2</i>	Annelida		0.1		7.3		
<i>Eusyllis transecta</i>	Annelida		0.1			0.1	0.3
<i>Exogone dwisula</i>	Annelida		0.1		0.9		0.9
<i>Exogone lourei</i>	Annelida	0.3	2.3	0.8	0.3	1.0	0.7
<i>Exogone molesta</i>	Annelida		<0.1				
<i>Exosphaeroma rhomburum</i>	Arthropoda		0.1			0.3	
<i>Eyakia robusta</i>	Arthropoda					0.3	
<i>Fabia subquadrata</i>	Arthropoda						<0.1
<i>Fabricinuda limnicola</i>	Annelida					13.5	
<i>Fabriciola sp</i>	Annelida					0.1	
<i>Falcidens longus</i>	Mollusca						0.1
<i>Flabelligera infundibularis</i>	Annelida	0.5					
<i>Foxiphalus cognatus</i>	Arthropoda						0.1
<i>Foxiphalus golfensis</i>	Arthropoda		<0.1			0.1	0.9
<i>Foxiphalus obtusidens</i>	Arthropoda	1.0	1.5	1.2	0.1	0.3	1.8
<i>Foxiphalus similis</i>	Arthropoda						0.2
<i>Gadila aberrans</i>	Mollusca	0.5	0.3	0.2		0.8	2.7
<i>Galathowenia pygidialis</i>	Annelida					0.3	
<i>Gammaropsis martesia</i>	Arthropoda					0.1	
<i>Gammaropsis thompsoni</i>	Arthropoda		0.2			1.1	0.4
<i>Garosyrhoe bigarra</i>	Arthropoda		<0.1	0.3	0.1		

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
Gastropoda	Mollusca			0.1	0.1		0.1
<i>Gastropteron pacificum</i>	Mollusca				0.1		0.1
<i>Gibberosus myersi</i>	Arthropoda		0.2			0.4	0.2
<i>Gitana calitemplado</i>	Arthropoda					<0.1	
<i>Glossaulax reclusianus</i>	Mollusca			0.1		0.1	0.1
<i>Glottidia albida</i>	Brachiopoda			0.1	0.4	0.1	0.2
<i>Glycera americana</i>	Annelida	0.5	0.1		0.5	0.1	0.2
<i>Glycera macrobranchia</i>	Annelida					0.4	0.5
<i>Glycera nana</i>	Annelida			0.1	2.1		0.1
<i>Glycera oxycephala</i>	Annelida		6.5	1.9	0.1	0.1	1.2
<i>Glycera tesselata</i>	Annelida						0.1
Glyceridae	Annelida					<0.1	
<i>Glycinde armigera</i>	Annelida	0.5	1.1	0.3	0.6	8.5	4.4
<i>Glycymeris septentrionalis</i>	Mollusca			0.1			
<i>Goniada littorea</i>	Annelida					0.5	
<i>Goniada maculata</i>	Annelida	0.3	0.1	0.8	0.6	0.4	0.6
<i>Gymnonereis crosslandi</i>	Annelida				0.1		
<i>Halcampa decenttentaculata</i>	Cnidaria	0.8	0.5	0.9	0.1		<0.1
<i>Halianthella</i> sp A	Cnidaria			0.1			
<i>Halicoides synopiae</i>	Arthropoda		<0.1	0.2	1.0		
<i>Haliophasma geminatum</i>	Arthropoda	0.3	0.2	0.1	1.0	0.1	0.7
<i>Halistylus pupoideus</i>	Mollusca		0.5	0.1			0.1
<i>Halosydna johnsoni</i>	Annelida					0.1	
<i>Hamatocalpellum californicum</i>	Arthropoda		<0.1		0.1		<0.1
Harpacticoida	Arthropoda						<0.1
<i>Hartmanodes hartmanae</i>	Arthropoda		0.6			0.1	0.3
<i>Hartmanodes</i> sp SD1	Arthropoda		<0.1	0.5			<0.1
<i>Hemilamprops californicus</i>	Arthropoda		2.4	0.5	0.1	0.1	3.1
<i>Hemipodia borealis</i>	Annelida	14.0	<0.1				0.1
<i>Hemiproto</i> sp A	Arthropoda				1.0		
<i>Hesionura coineaui difficilis</i>	Annelida	11.0	0.3	0.3			<0.1
<i>Heteromastus filobranchus</i>	Annelida						<0.1
Heteronemertea	Nemertea						<0.1
Heteronemertea sp SD2	Nemertea		0.2	0.2			0.2
<i>Heterophoxus oculatus</i>	Arthropoda						<0.1
<i>Heteropodarke heteromorpha</i>	Annelida		0.3	0.1			
<i>Heteroserolis carinata</i>	Arthropoda	0.5	0.1	0.1			0.1
<i>Heterospio catalinensis</i>	Annelida						0.2
<i>Hippomedon</i> sp A	Arthropoda			0.1			<0.1
<i>Hippomedon zetesimus</i>	Arthropoda			0.1		0.1	0.1
Hoplонемерта sp A	Nemertea						<0.1
<i>Hornellia occidentalis</i>	Arthropoda		3.0				<0.1
<i>Isocheles pilosus</i>	Arthropoda		0.3				
<i>Jasmineira</i> sp B	Annelida				1.6	3.0	0.1
<i>Joeropsis concava</i>	Arthropoda						<0.1
<i>Joeropsis dubia</i>	Arthropoda					0.1	
<i>Kurtzia arteaga</i>	Mollusca		<0.1				0.1
<i>Kurtziella plumbea</i>	Mollusca	1.5	0.3	0.2	0.1	1.1	1.3
<i>Kurtzina beta</i>	Mollusca		<0.1		0.1		0.1

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Lacydonia</i> sp	Annelida	0.3					
<i>Lamprops quadruplicatus</i>	Arthropoda		0.1			0.1	
<i>Lanassa venusta venusta</i>	Annelida	0.3	0.2	11.9			0.9
<i>Lanice conchilega</i>	Annelida						<0.1
<i>Laonice cirrata</i>	Annelida			0.1		0.3	2.6
<i>Laonice nuchala</i>	Annelida						<0.1
Lasaeidae	Mollusca			<0.1			0.1
<i>Laticorophium baconi</i>	Arthropoda				1.2		0.4
<i>Leitoscoloplos pugettensis</i>	Annelida			<0.1	0.2		0.1
<i>Lepidasthenia berkeleyae</i>	Annelida						<0.1
<i>Lepidasthenia longicirrata</i>	Annelida						<0.1
<i>Lepidepecreum serratulum</i>	Arthropoda	0.3	0.1	0.1			<0.1
<i>Lepidopa californica</i>	Arthropoda		0.1				
<i>Leptochelia dubia</i>	Arthropoda		0.9	0.6	4.0	0.9	1.5
<i>Leptopecten latiauratus</i>	Mollusca	0.5		0.2		0.6	1.4
Leptoplanidae	Platyhelminthes			<0.1			0.1
<i>Leptostyly abditis</i>	Arthropoda					0.1	
<i>Leptosynapta</i> sp	Echinodermata		5.3	0.5	0.4	0.3	0.1
<i>Leuroleberis sharpei</i>	Arthropoda	0.5	1.0	0.4	0.3		0.6
<i>Levinsenia gracilis</i>	Annelida						0.1
<i>Levinsenia</i> sp B	Annelida					0.9	
Liljeborgiidae	Arthropoda						<0.1
<i>Limatula saturna</i>	Mollusca					0.1	<0.1
Lineidae	Nemertea	1.0	0.6	0.4	1.4	0.6	0.4
<i>Lineus bilineatus</i>	Nemertea			0.3		0.1	
<i>Lirobarleeia kelseyi</i>	Mollusca				1.8		
<i>Lirobittium larum</i>	Mollusca						<0.1
<i>Listriella diffusa</i>	Arthropoda			<0.1			
<i>Listriella goleta</i>	Arthropoda					0.1	0.2
<i>Listriella melanica</i>	Arthropoda			0.1			
<i>Listriella</i> sp SD1	Arthropoda						0.1
<i>Listriolobus pelodes</i>	Echiura					0.3	
<i>Loimia</i> sp A	Annelida						<0.1
<i>Lovenia cordiformis</i>	Echinodermata		0.1	0.1			
<i>Lucinисca nuttalli</i>	Mollusca			0.1		0.1	0.1
<i>Lucinoma annulatum</i>	Mollusca						<0.1
Lumbrineridae	Annelida						<0.1
<i>Lumbrinerides platypygos</i>	Annelida	4.0	11.9	1.6	0.1	0.9	0.3
<i>Lumbrineris cruzensis</i>	Annelida		0.3	0.2	1.0		1.5
<i>Lumbrineris latreilli</i>	Annelida	1.8	0.2	0.5	2.3		<0.1
<i>Lumbrineris lingulata</i>	Annelida		0.7	1.0	4.0		0.7
<i>Lumbrineris</i> sp	Annelida						<0.1
<i>Lumbrineris</i> sp group I	Annelida	2.3	0.4	0.4	0.3	0.1	1.5
<i>Lumbrineris</i> sp group II	Annelida		<0.1	0.5	0.1		0.1
<i>Lyonsia californica</i>	Mollusca	0.3	0.9	0.7	0.3		0.4
Lyonsiidae	Mollusca		1.2	1.9	0.9	0.4	0.3
<i>Lysippe</i> sp A	Annelida		0.2	0.2	0.1		0.9
<i>Lysippe</i> sp B	Annelida				0.1		
<i>Lytechinus pictus</i>	Echinodermata	1.0	<0.1	0.1	0.1		

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Macoma nasuta</i>	Mollusca			0.1			<0.1
<i>Macoma</i> sp	Mollusca					0.1	0.1
<i>Macoma yoldiformis</i>	Mollusca			0.4		0.1	1.1
Mactridae	Mollusca			0.1			2.1
<i>Magelona berkeleyi</i>	Annelida					0.1	0.3
<i>Magelona hartmanae</i>	Annelida						0.1
<i>Magelona hobsonae</i>	Annelida		<0.1				
<i>Magelona sacculata</i>	Annelida	0.8	0.3			0.1	0.1
<i>Magelona</i> sp	Annelida						0.1
<i>Magelona</i> sp A	Annelida					0.1	0.1
Majoidea	Arthropoda					0.1	0.1
<i>Malacoceros indicus</i>	Annelida			0.1	0.3		
<i>Maldane sarsi</i>	Annelida				1.8		<0.1
Maldanidae	Annelida			1.8	1.8	0.6	1.6
Maldaninae	Annelida			0.4	0.2		<0.1
<i>Malmgreniella baschi</i>	Annelida		<0.1				<0.1
<i>Malmgreniella macginitieei</i>	Annelida						0.1
<i>Malmgreniella</i> sp	Annelida					0.1	0.1
<i>Malmgreniella</i> sp A	Annelida	1.8	<0.1	0.1	0.1	0.1	0.1
<i>Mandibulophoxus gilesi</i>	Arthropoda	0.3	<0.1				
<i>Mangelia hexagona</i>	Mollusca			0.1			
<i>Marphysa disjuncta</i>	Annelida			0.1			
<i>Marphysa</i> sp	Annelida					0.1	<0.1
<i>Mayerella banksia</i>	Arthropoda	0.3	<0.1		0.1	0.2	0.3
<i>Mediomastus acutus</i>	Annelida			<0.1		0.1	0.2
<i>Mediomastus</i> sp	Annelida	0.5	11.3	1.6	0.2	2.9	6.4
<i>Megalomma pigmentum</i>	Annelida			0.1	0.1	0.1	0.1
<i>Megalomma</i> sp	Annelida					0.1	0.2
Megalopidae sp A	Arthropoda				0.9	0.1	
<i>Megasurcula carpenteriana</i>	Mollusca				0.1		<0.1
<i>Melanella rosa</i>	Mollusca					0.6	<0.1
<i>Melinna oculata</i>	Annelida		<0.1		0.4	0.1	3.0
<i>Melphisana bola</i> complex	Arthropoda			<0.1		0.1	0.1
<i>Mesocrangon munitella</i>	Arthropoda						<0.1
<i>Mesolamprops bispinosus</i>	Arthropoda					0.4	0.1
<i>Metacarcinus gracilis</i>	Arthropoda						0.4
<i>Metaphoxus frequens</i>	Arthropoda					0.1	0.1
<i>Metasychis disparidentatus</i>	Annelida					0.8	1.3
<i>Metatiron tropakis</i>	Arthropoda	2.8					0.1
<i>Metharpinia coronadoi</i>	Arthropoda		0.6	0.4		0.2	0.1
<i>Metharpinia jonesi</i>	Arthropoda	0.5					
<i>Metopa dawsoni</i>	Arthropoda				0.1		<0.1
<i>Micranellum crebricinctum</i>	Mollusca	0.5	1.1	0.5		0.2	
<i>Microjassa</i> sp	Arthropoda				0.1	0.1	0.1
<i>Microphthalmus</i> sp	Annelida	0.3	<0.1				
<i>Micropodarke dubia</i>	Annelida		12.5				
<i>Micrura alaskensis</i>	Nemertea			0.1	0.2		
<i>Micrura</i> sp	Nemertea					0.1	
<i>Modiolus neglectus</i>	Mollusca						<0.1

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Modiolus</i> sp	Mollusca			<0.1	0.1		0.3
<i>Molgula pugetensis</i>	Chordata			0.1	0.5		
<i>Molgula regularis</i>	Chordata					0.5	
<i>Molgula</i> sp	Chordata			0.1	0.1	0.1	<0.1
<i>Molgula</i> sp SD1	Chordata			0.1			0.1
<i>Molpadia intermedia</i>	Echinodermata					0.1	
<i>Monoculodes emarginatus</i>	Arthropoda					0.9	
<i>Monostyliferoidea</i>	Nemertea	1.8	<0.1	0.4		0.2	0.2
<i>Monticellina cryptica</i>	Annelida		<0.1	0.1	1.1		0.5
<i>Monticellina siblina</i>	Annelida	0.8	1.5		1.1	1.8	38.7
<i>Monticellina</i> sp	Annelida		<0.1				0.1
<i>Monticellina tesselata</i>	Annelida						0.9
<i>Mooreonuphis nebulosa</i>	Annelida			0.6	0.4	0.1	18.1
<i>Mooreonuphis</i> sp	Annelida			1.8	9.2	0.1	1.8
<i>Mooreonuphis</i> sp SD1	Annelida			3.1	15.2		0.6
<i>Mooresamytha bioculata</i>	Annelida				0.1	0.3	
<i>Myriochele gracilis</i>	Annelida					25.6	
<i>Myriochele striolata</i>	Annelida				0.5	4.6	1.2
<i>Mysidae</i>	Arthropoda						<0.1
<i>Mysidopsis intii</i>	Arthropoda						<0.1
<i>Mystides</i> sp	Annelida						0.1
<i>Myxicola</i> sp	Annelida						0.1
<i>Naineris uncinata</i>	Annelida					0.1	0.2
<i>Neastacilla californica</i>	Arthropoda	0.3	<0.1	0.1	0.1	0.1	0.3
<i>Nebalia daytoni</i>	Arthropoda						0.1
<i>Nebalia pugettensis</i> complex	Arthropoda			0.1			<0.1
<i>Nematoda</i>	Nematoda	1.5	3.0	1.3	1.5	0.6	1.0
<i>Nemertea</i>	Nemertea			<0.1		0.1	
<i>Nemocardium centifilosum</i>	Mollusca					0.4	
<i>Neocrangon</i> sp	Arthropoda					0.1	
<i>Neolepton salmonicum</i>	Mollusca			<0.1			<0.1
<i>Neomysis kodiakensis</i>	Arthropoda						0.2
<i>Neosabellaria cementarium</i>	Annelida			0.2			0.3
<i>Neotrypaea</i> sp	Arthropoda					0.1	<0.1
<i>Nephasoma diaphanes</i>	Sipuncula				0.1		
<i>Nephtys caecoides</i>	Annelida	0.5	0.8	0.3	0.4	0.7	1.0
<i>Nephtys cornuta</i>	Annelida						0.4
<i>Nephtys ferruginea</i>	Annelida		<0.1	0.1	0.5		0.2
<i>Nephtys</i> sp	Annelida						<0.1
<i>Nephtys</i> sp SD2	Annelida		<0.1	0.2			
<i>Nereididae</i>	Annelida			<0.1		0.1	<0.1
<i>Nereiphylla</i> sp 2	Annelida			<0.1	0.1	0.1	0.1
<i>Nereis latescens</i>	Annelida						0.1
<i>Nereis</i> sp A	Annelida	0.8	1.4	0.2	0.1	1.2	5.1
<i>Nodiscala spongiosa</i>	Mollusca			<0.1			
<i>Notocirrus californiensis</i>	Annelida						<0.1
<i>Notomastus latericeus</i>	Annelida	0.8	17.7	0.1	0.9	0.8	10.5
<i>Notomastus lineatus</i>	Annelida	0.3	<0.1				
<i>Notomastus</i> sp	Annelida					0.1	0.1

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Notomastus</i> sp A	Annelida		0.5	0.1		0.3	0.5
<i>Nuculana hamata</i>	Mollusca					1.0	
<i>Nuculana penderi</i>	Mollusca					0.1	
<i>Nuculana</i> sp	Mollusca					<0.1	
<i>Nuculana</i> sp A	Mollusca					0.6	
<i>Nuculana taphria</i>	Mollusca	1.5		0.1			4.6
<i>Odontosyllis phosphorea</i>	Annelida		0.3	<0.1	0.4		0.1
<i>Odontosyllis</i> sp SD1	Annelida		0.3				0.7
<i>Odostomia</i> sp	Mollusca	1.0		0.1			0.6
Oenonidae	Annelida					0.1	
<i>Oerstedia dorsalis</i>	Nemertea			<0.1	0.1	0.3	0.2
Oligochaeta	Annelida		4.3		0.1		
Onuphidae	Annelida			1.2	6.3	0.3	0.4
<i>Onuphis elegans</i>	Annelida			0.1			1.3
<i>Onuphis eremita parva</i>	Annelida			0.2			0.1
<i>Onuphis</i> sp	Annelida			0.3	0.1	0.1	0.3
<i>Onuphis</i> sp A	Annelida		1.3	1.7	1.1	0.8	1.9
<i>Ophelia pulchella</i>	Annelida		1.5	2.0	0.9		0.4
<i>Ophelina acuminata</i>	Annelida					0.1	
<i>Ophelina</i> sp SD1	Annelida					0.1	
<i>Ophiodermella inermis</i>	Mollusca			0.1		0.3	0.2
<i>Ophiodromus pugettensis</i>	Annelida		0.5		0.1		
<i>Ophiothrix spiculata</i>	Echinodermata						0.1
<i>Ophiura luetkenii</i>	Echinodermata				0.1	1.0	0.1
<i>Ophiuroconis bispinosa</i>	Echinodermata			3.6	10.9	3.6	3.0
Ophiuroidea	Echinodermata			<0.1		0.4	0.1
<i>Orchomene anaquelus</i>	Arthropoda						<0.1
<i>Orchomenella decipiens</i>	Arthropoda				0.1		
<i>Orchomenella pacifica</i>	Arthropoda				0.2		
<i>Owenia collaris</i>	Annelida			<0.1			0.1
<i>Oxyurostylis pacifica</i>	Arthropoda	0.5		<0.1			0.2
<i>Pachynus barnardi</i>	Arthropoda			<0.1			<0.1
<i>Pacifacanthomysis nephrophthalma</i>	Arthropoda			0.1			0.1
Palaeonemertea	Nemertea		0.8	0.1	0.1	0.1	0.3
<i>Pandora bilirata</i>	Mollusca				0.3		0.1
<i>Paradiopatra parva</i>	Annelida				0.1	1.8	0.1
<i>Paradoneis lyra</i>	Annelida		0.5			0.1	
<i>Paradoneis</i> sp	Annelida		0.3				
<i>Paradoneis</i> sp SD1	Annelida					1.0	<0.1
<i>Parametopella ninis</i>	Arthropoda				0.1		
<i>Paranaitis</i> sp SD1	Annelida			<0.1			
<i>Parandalia fauveli</i>	Annelida						0.1
<i>Paranemertes californica</i>	Nemertea			0.1	0.1	0.4	0.7
Paraonidae	Annelida		0.3	<0.1			0.1
<i>Parapriionospio alata</i>	Annelida					0.1	1.6
<i>Pareurythoe californica</i>	Annelida		73.0				0.1
<i>Parougia caeca</i>	Annelida			0.1			0.4
<i>Parvilucina tenuisculpta</i>	Mollusca			0.3	0.1	3.1	0.6
<i>Pectinaria californiensis</i>	Annelida					0.9	0.4

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Pectinaria granulata</i>	Annelida	0.3					
<i>Pectinidae</i>	Mollusca					0.1	
<i>Penaeoidea</i>	Arthropoda					0.1	
<i>Pentactinia californica</i>	Cnidaria			0.2			
<i>Pentamera lissoplaca</i>	Echinodermata						0.1
<i>Pentamera populifera</i>	Echinodermata					0.3	0.1
<i>Pentamera pseudopopulifera</i>	Echinodermata		<0.1		0.1		0.4
<i>Pentamera sp</i>	Echinodermata				0.4	0.9	0.3
<i>Periploma discus</i>	Mollusca						0.1
<i>Periploma sp</i>	Mollusca				0.1		0.3
<i>Petaloclymene pacifica</i>	Annelida		<0.1	0.1			2.0
<i>Phascolion sp A</i>	Sipuncula				1.8		0.3
<i>Pherusa negligens</i>	Annelida						<0.1
<i>Pherusa neopapillata</i>	Annelida	1.0	0.2		0.4	0.1	1.6
<i>Philine auriformis</i>	Mollusca		<0.1				
<i>Philinoglossa sp A</i>	Mollusca	3.0					
<i>Phisidia sanctaemariae</i>	Annelida				1.5		<0.1
<i>Phlooe glabra</i>	Annelida				0.5		0.1
<i>Phlooides asperus</i>	Annelida		<0.1			0.1	
<i>Phorona</i>	Phorona		0.1				<0.1
<i>Phoronis sp</i>	Phorona		0.5	0.1	1.6		0.2
<i>Phoronis sp SD1</i>	Phorona					0.1	0.1
<i>Phoronopsis sp</i>	Phorona	1.3	0.2	0.1	0.4		
<i>Photis bifurcata</i>	Arthropoda			0.1			<0.1
<i>Photis brevipes</i>	Arthropoda		2.3	0.7		1.8	1.6
<i>Photis californica</i>	Arthropoda			0.5	2.9		0.6
<i>Photis lacia</i>	Arthropoda			0.1	0.6		
<i>Photis macinerneyi</i>	Arthropoda		0.2			0.7	
<i>Photis sp</i>	Arthropoda	2.0	0.8		0.1	1.2	0.7
<i>Photis sp C</i>	Arthropoda				0.9		0.1
<i>Photis sp OC1</i>	Arthropoda		0.1		0.3	2.4	0.8
<i>Phoxocephalidae</i>	Arthropoda		<0.1				
<i>Phyllochaetopterus limiculus</i>	Annelida				0.1		0.1
<i>Phyllodoce cuspidata</i>	Annelida		<0.1		0.1		0.1
<i>Phyllodoce groenlandica</i>	Annelida		0.1	0.1	0.6		0.1
<i>Phyllodoce hartmanae</i>	Annelida	0.3	2.5	0.6	0.5	0.6	2.4
<i>Phyllodoce longipes</i>	Annelida		0.1			1.2	0.4
<i>Phyllodoce medipapillata</i>	Annelida	1.3					
<i>Phyllodoce pettiboneae</i>	Annelida		0.8			0.4	0.1
<i>Phyllodoce sp</i>	Annelida	2.0	<0.1			0.2	0.1
<i>Phyllodocidae</i>	Annelida	0.3					
<i>Phyllophoridae</i>	Echinodermata	0.3		0.1			0.1
<i>Phyllophoridae sp A</i>	Echinodermata	0.3					
<i>Phylo felix</i>	Annelida						0.1
<i>Pinnixa franciscana</i>	Arthropoda						0.1
<i>Pinnixa longipes</i>	Arthropoda					0.1	0.2
<i>Pinnixa occidentalis complex</i>	Arthropoda						<0.1
<i>Pinnixa sp</i>	Arthropoda		0.1		0.1		0.2
<i>Pionosyllis sp SD2</i>	Annelida		0.2				

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Piomis</i> sp A	Annelida				0.3		
<i>Pistone</i> sp	Annelida	10.0		0.3			0.3
<i>Pista brevibranchiata</i>	Annelida			0.1	0.3		
<i>Pista estevanica</i>	Annelida		0.5	0.2	3.0	0.1	0.9
<i>Pista moorei</i>	Annelida		0.2	0.1			<0.1
<i>Pista</i> sp	Annelida					0.1	0.1
<i>Pista wui</i>	Annelida		0.2			1.0	1.7
<i>Platymera gaudichaudii</i>	Arthropoda						<0.1
<i>Platynereis bicanaliculata</i>	Annelida		0.3			0.5	0.1
<i>Pleusymtes subglaber</i>	Arthropoda			0.1	0.1		0.1
<i>Podarkeopsis glabrus</i>	Annelida						0.1
<i>Podocerus brasiliensis</i>	Arthropoda					0.1	
<i>Poecilochaetus johnsoni</i>	Annelida		<0.1	0.1			<0.1
<i>Polycirrus californicus</i>	Annelida	1.0					
<i>Polycirrus</i> sp	Annelida	9.8	0.8	2.6	0.5	0.1	0.4
<i>Polycirrus</i> sp A	Annelida		2.5	7.3	0.6	0.1	2.8
<i>Polycirrus</i> sp I	Annelida	0.8	0.1	0.8			
<i>Polycirrus</i> sp OC1	Annelida			0.1	0.1		0.1
<i>Polycirrus</i> sp SD3	Annelida	0.8		0.1	0.1		
<i>Polydora limicola</i>	Annelida		2.1				
<i>Polydora</i> sp	Annelida		0.8		0.1	0.8	<0.1
<i>Polygireulima rutila</i>	Mollusca		0.4	0.1			
<i>Polygordius</i> sp SD1	Annelida	0.3					
Polynoidae	Annelida					0.1	
<i>Polyschides quadrifissatus</i>	Mollusca	0.3	2.2	1.6			0.4
<i>Postasterope barnesi</i>	Arthropoda				0.1		
<i>Potamethus</i> sp A	Annelida						0.2
<i>Prachynella lodo</i>	Arthropoda			0.1			<0.1
<i>Praxillella gracilis</i>	Annelida						<0.1
<i>Praxillella pacifica</i>	Annelida		0.1	2.6	0.8	0.1	2.1
<i>Prionospio (Minusprio) lighti</i>	Annelida				0.1		0.2
<i>Prionospio (Prionospio) dubia</i>	Annelida			0.1	5.8		<0.1
<i>Prionospio (Prionospio) jubata</i>	Annelida		1.0	0.3	2.8	0.1	3.2
<i>Procampylaspis caenosa</i>	Arthropoda				0.4		
<i>Proceraea</i> sp	Annelida				0.1	0.1	<0.1
<i>Proclea</i> sp A	Annelida				0.1		
Propeamussiidae	Mollusca					0.1	
<i>Protodorvillea gracilis</i>	Annelida	4.3	4.1	0.7		1.1	0.3
<i>Protomediea articulata</i> complex	Arthropoda					0.3	
<i>Protomystides</i> sp SD1	Annelida	2.8	<0.1				
<i>Prototrygaeus jordanae</i>	Arthropoda	0.5				0.4	0.4
<i>Pseudopotamilla</i> sp	Annelida					0.1	
Pycnogonida	Arthropoda						<0.1
<i>Pyromia tuberculata</i>	Arthropoda					0.1	<0.1
Rhabdocoela sp A	Platyhelminthes	1.0					
<i>Rhachotropis</i> sp A	Arthropoda				0.3		
<i>Rhamphobrachium longisetosum</i>	Annelida				1.0		0.1
<i>Rhepoxyinius abronius</i>	Arthropoda						0.1
<i>Rhepoxyinius daboios</i>	Arthropoda						0.1

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
<i>Rhepoxyinius fatigans</i>	Arthropoda					0.5	
<i>Rhepoxyinius heterocupidatus</i>	Arthropoda		1.3	0.7			<0.1
<i>Rhepoxyinius lucubrans</i>	Arthropoda		0.2		1.9		
<i>Rhepoxyinius menziesi</i>	Arthropoda	0.3	0.4			1.0	1.1
<i>Rhepoxyinius</i> sp	Arthropoda				0.1		
<i>Rhepoxyinius stenodes</i>	Arthropoda			0.1	0.1	1.6	1.0
<i>Rhepoxyinius variatus</i>	Arthropoda		0.2		0.1	0.2	<0.1
<i>Rhodine bitorquata</i>	Annelida				1.0		<0.1
<i>Rictaxis punctocaelatus</i>	Mollusca		0.3		0.1	0.6	1.0
<i>Rochefortia grippi</i>	Mollusca		0.4	0.1		0.1	0.1
<i>Rochefortia</i> sp	Mollusca				0.1		0.1
<i>Rochefortia tumida</i>	Mollusca		2.6	0.7	2.4	0.7	1.5
<i>Rudilemboides</i> sp	Arthropoda					<0.1	
<i>Rudilemboides</i> sp A	Arthropoda			0.1			<0.1
<i>Rudilemboides stenopropodus</i>	Arthropoda	0.3	0.2	0.1	0.1		0.2
<i>Rutiderma rotundum</i>	Arthropoda	0.3					
<i>Sabellaria gracilis</i>	Annelida			0.1		1.5	0.1
<i>Sabellidae</i>	Annelida				0.4	0.1	<0.1
<i>Sabellides manriquei</i>	Annelida			0.1			
<i>Saccocirrus</i> sp	Annelida	1.0					
<i>Saccoglossus</i> sp	Chordata		<0.1			0.1	0.3
<i>Samytha californiensis</i>	Annelida				0.3		0.1
<i>Saxicavella pacifica</i>	Mollusca				0.1		
<i>Scalibregma californicum</i>	Annelida			0.1		0.4	0.2
<i>Scaphopoda</i>	Mollusca			0.3	0.1	0.1	<0.1
<i>Schistocomus hiltoni</i>	Annelida						0.1
<i>Schistocomus</i> sp	Annelida				0.1		<0.1
<i>Schistocomus</i> sp A	Annelida			0.2		2.0	0.3
<i>Schizocardium</i> sp	Chordata		<0.1		0.1		<0.1
<i>Scolelepis (Scolelepis) occidentalis</i>	Annelida				0.1		
<i>Scoletoma tetraura</i> complex	Annelida				0.1	1.0	0.7
<i>Scoloplos acmeceps</i>	Annelida			1.0	0.4	0.1	0.2
<i>Scoloplos armiger</i> complex	Annelida	4.0	5.2	2.0	2.5	0.1	1.8
<i>Scoloplos</i> sp	Annelida			0.2			
<i>Sigalion spinosus</i>	Annelida	0.5	0.8	0.9	3.1	1.5	1.1
<i>Sige</i> sp A	Annelida		1.5	<0.1	0.1		0.1
<i>Simomactra planulata</i>	Mollusca		0.8	0.3	0.5		0.1
<i>Sipuncula</i>	Sipuncula			<0.1	0.1		
<i>Solamen columbianum</i>	Mollusca			1.5	1.4	3.9	0.2
<i>Solariella peramabilis</i>	Mollusca				1.6		0.1
<i>Solemya reidi</i>	Mollusca					1.3	0.3
<i>Solen sicarius</i>	Mollusca			0.2		1.0	0.4
<i>Sphaerephesia similisetis</i>	Annelida					0.1	
<i>Sphaerosyllis californiensis</i>	Annelida	0.8	<0.1	0.1		0.9	0.1
<i>Spio filicornis</i>	Annelida				0.1	0.5	0.1
<i>Spio maculata</i>	Annelida	6.5	4.8	9.4		0.2	0.3
<i>Spiochaetopterus costarum</i> complex	Annelida			0.2	0.1	0.1	0.4
<i>Spionidae</i>	Annelida			0.1			0.1
<i>Spiophanes berkeleyorum</i>	Annelida			0.8	0.8	0.6	9.4

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group						
		A	B	C	D	E	F	G
<i>Spiophanes norrisi</i>	Annelida	1.0	20.8	196.8	54.6	18.8	32.9	80.7
<i>Spiophanes duplex</i>	Annelida	1.0	2.8	1.3		3.0	42.7	8.0
<i>Spiophanes</i> sp	Annelida					0.1	0.1	
<i>Stenothoides bicoma</i>	Arthropoda			0.1		0.1	<0.1	
<i>Stereobalanus</i> sp	Chordata			<0.1		0.5	0.1	0.1
<i>Sternaspis fessor</i>	Annelida					0.6		0.4
<i>Sthenelais</i> sp	Annelida		0.3	<0.1			0.1	0.1
<i>Sthenelais tertiglabra</i>	Annelida					0.8	0.1	1.0
<i>Sthenelais verruculosa</i>	Annelida						0.3	0.2
<i>Sthenelanella uniformis</i>	Annelida			<0.1		2.8		0.7
<i>Stolidobranchiata</i>	Chordata			0.1	0.1			<0.1
<i>Streblosoma crassibranchia</i>	Annelida					1.6		0.4
<i>Streblosoma</i> sp	Annelida			0.2	0.9	0.3	0.3	0.5
<i>Streblosoma</i> sp B	Annelida			0.1	1.1	1.3	0.4	1.7
<i>Streblosoma</i> sp SD1	Annelida					0.4		
<i>Streblosoma</i> sp SF1	Annelida			0.1	0.2		0.2	0.3
<i>Streptosyllis</i> sp SD1	Annelida			<0.1				
<i>Stylatula elongata</i>	Cnidaria			<0.1				
<i>Stylatula</i> sp	Cnidaria	0.5		<0.1			0.1	0.1
<i>Stylatula</i> sp A	Cnidaria		0.3	<0.1				
<i>Stylochoplana</i> sp HYP2	Platyhelminthes			<0.1				
<i>Stylochus exiguus</i>	Platyhelminthes						0.1	<0.1
<i>Syllides reishi</i>	Annelida	0.5						
<i>Synidotea magnifica</i>	Arthropoda			0.2				1.5
Tanaidacea	Arthropoda				0.1			
<i>Tellina bodegensis</i>	Mollusca			<0.1				
<i>Tellina cadieni</i>	Mollusca					0.1		0.1
<i>Tellina carpenteri</i>	Mollusca					3.1		
<i>Tellina idae</i>	Mollusca							0.2
<i>Tellina modesta</i>	Mollusca			1.2	0.1	0.3	2.7	5.7
<i>Tellina nuculoides</i>	Mollusca			0.1				
Tellinidae	Mollusca					0.1		
<i>Tenonia priops</i>	Annelida	0.3	0.3	0.2	0.1	0.4	0.3	
Terebellidae	Annelida					0.4	0.1	<0.1
<i>Terebellides californica</i>	Annelida					1.1		0.2
<i>Tetrastemma albidum</i>	Nemertea					0.4	0.1	
<i>Tetrastemma candidum</i>	Nemertea	0.5			0.3		0.1	<0.1
<i>Tetrastemma nigrifrons</i>	Nemertea			0.1			0.1	0.1
<i>Tetrastemma</i> sp	Nemertea			<0.1				0.1
<i>Thracia trapezoides</i>	Mollusca					0.1		
Thraciidae	Mollusca							0.3
Thracioidea	Mollusca					0.1		0.1
<i>Thyasira flexuosa</i>	Mollusca					0.5		0.1
<i>Thysanocardia nigra</i>	Sipuncula			0.1	0.8	0.6	0.1	0.2
<i>Tiburonella viscana</i>	Arthropoda	0.3	<0.1					
<i>Tiron biocellata</i>	Arthropoda			0.2			0.9	0.6
<i>Trachycardium quadragenarium</i>	Mollusca							<0.1
<i>Travisia brevis</i>	Annelida					0.4		<0.1
<i>Tritella pilimana</i>	Arthropoda						0.1	

Appendix D.1 *continued*

Species/Taxa	Phyla	Cluster Group					
		A	B	C	D	E	F
Tubulanidae	Nemertea			<0.1		0.1	0.1
Tubulanidae sp B	Nemertea						0.1
<i>Tubulanus cingulatus</i>	Nemertea			0.3		0.8	0.1
<i>Tubulanus polymorphus</i>	Nemertea			0.6	0.1	1.4	1.1
<i>Tubulanus</i> sp	Nemertea						0.1
<i>Tubulanus</i> sp A	Nemertea					0.4	0.1
<i>Turbonilla</i> sp	Mollusca	0.3					0.1
<i>Turbonilla</i> sp A	Mollusca		0.1	0.1		0.2	0.1
<i>Turbonilla</i> sp SD1	Mollusca			0.1	0.1	0.1	0.5
<i>Turbonilla</i> sp SD2	Mollusca					0.1	0.1
<i>Turbonilla</i> sp SD5	Mollusca				0.1		<0.1
<i>Turbonilla</i> sp SD6	Mollusca		0.1			0.1	0.1
<i>Turbonilla</i> sp SD7	Mollusca				0.1		
<i>Typosyllis farallonensis</i>	Annelida	0.5				0.4	0.4
<i>Typosyllis heterochaeta</i>	Annelida		0.4		1.1		0.5
<i>Typosyllis hyperioni</i>	Annelida				0.4		
<i>Typosyllis</i> sp	Annelida				0.1		0.1
<i>Typosyllis</i> sp SD1	Annelida	20.8	0.1	2.6			
<i>Typosyllis</i> sp SD2	Annelida	0.8	4.7	1.8			0.1
<i>Typosyllis</i> sp SD6	Annelida	0.3					
Venerinae	Mollusca					0.2	<0.1
<i>Virgularia californica</i>	Cnidaria						<0.1
<i>Virgularia</i> sp	Cnidaria						<0.1
<i>Volvulella californica</i>	Mollusca						0.1
<i>Volvulella cylindrica</i>	Mollusca	0.5		0.1		0.3	0.6
<i>Volvulella panamica</i>	Mollusca						0.2
<i>Volvulella</i> sp	Mollusca	0.5				0.1	0.1
<i>Westwoodilla tone</i>	Arthropoda	1.0	0.2		0.4	0.1	0.8
<i>Xenoleberis californica</i>	Arthropoda				0.1	0.1	0.1
<i>Zaolotus actius</i>	Cnidaria						0.1
<i>Zygeupolia rubens</i>	Nemertea			0.1			